

FIG.1

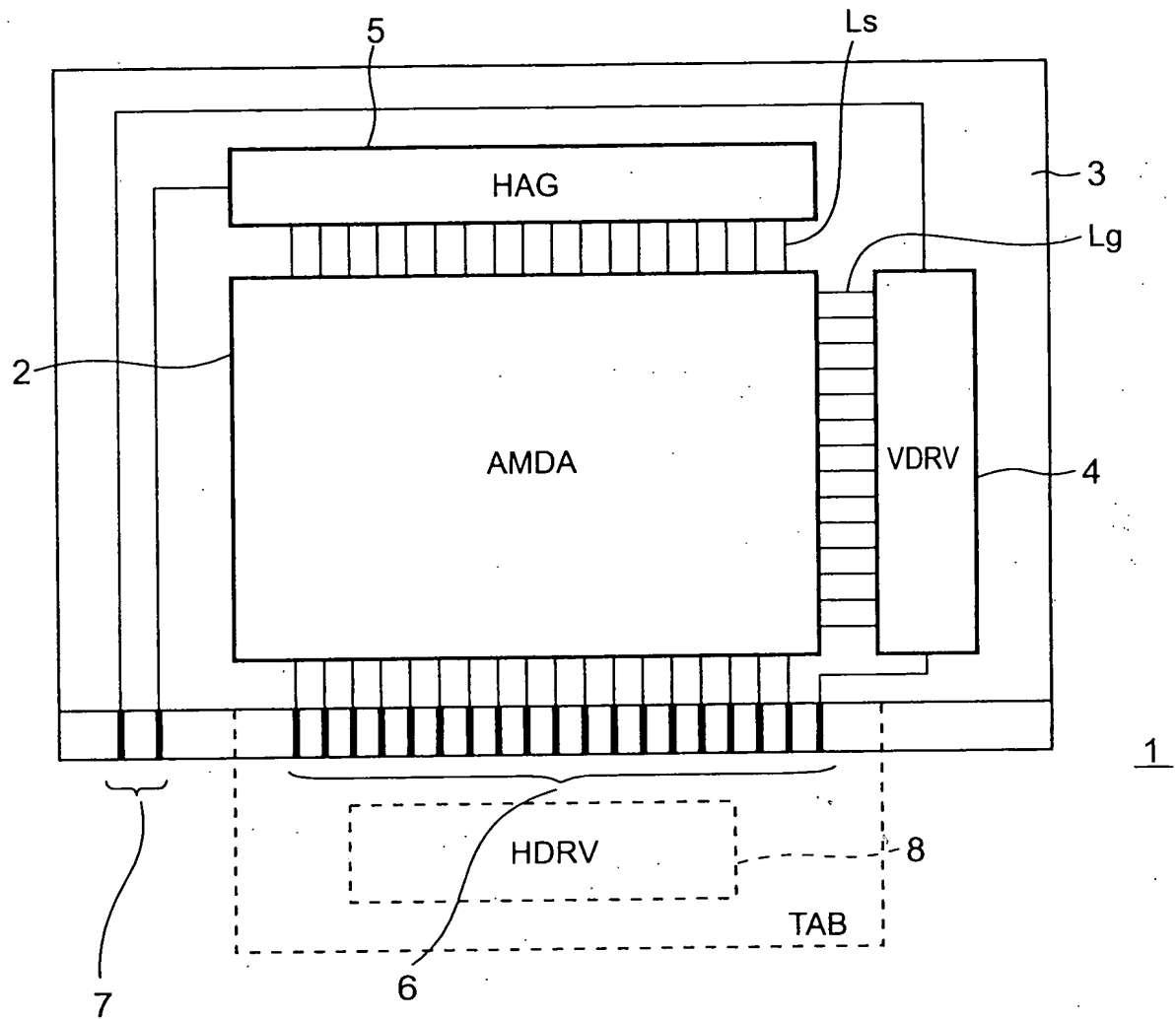


FIG.3A VST



FIG.3B VCK

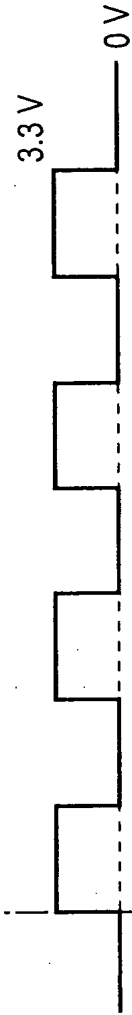


FIG.3C VCOM

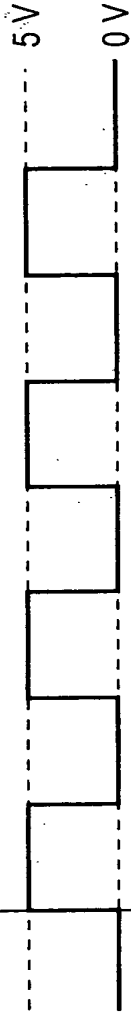


FIG.3D SIG (BLACK DISPLAY)

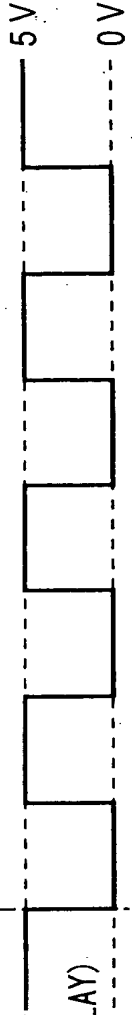


FIG.3E SIG (WHITE DISPLAY)

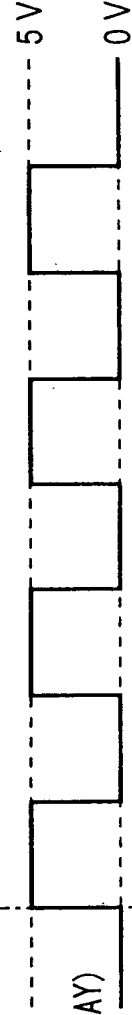


FIG.4

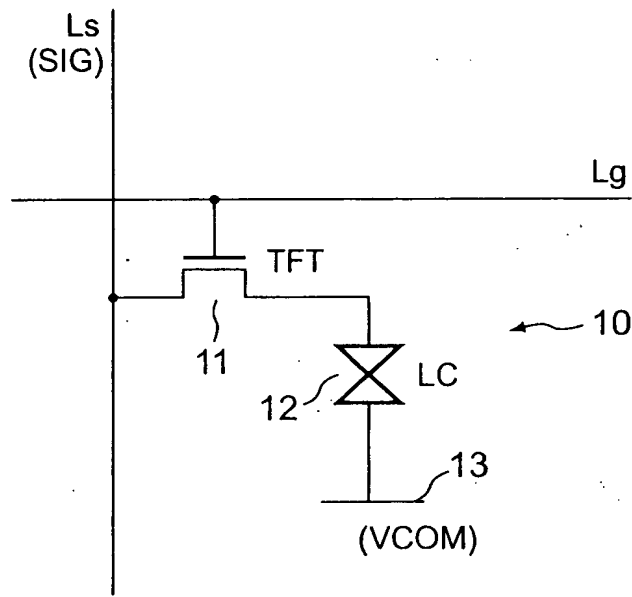


FIG.5

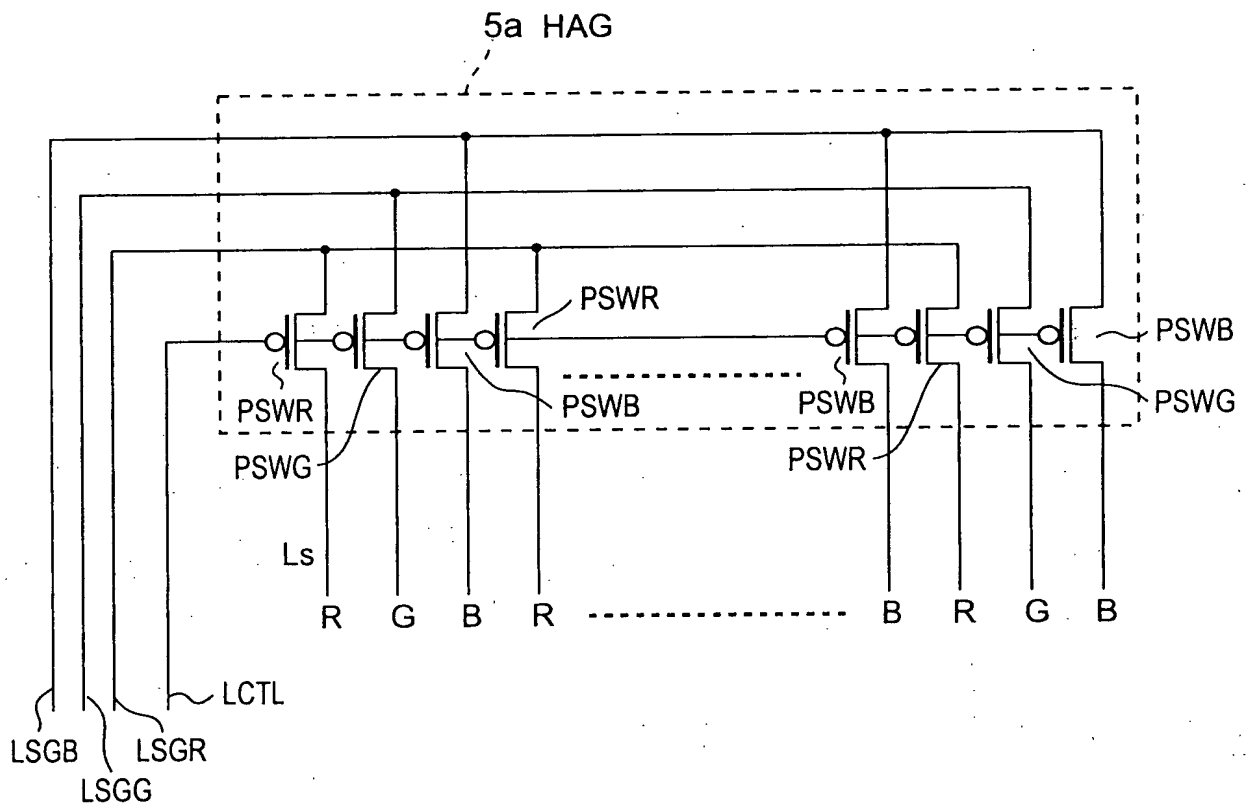


FIG.6

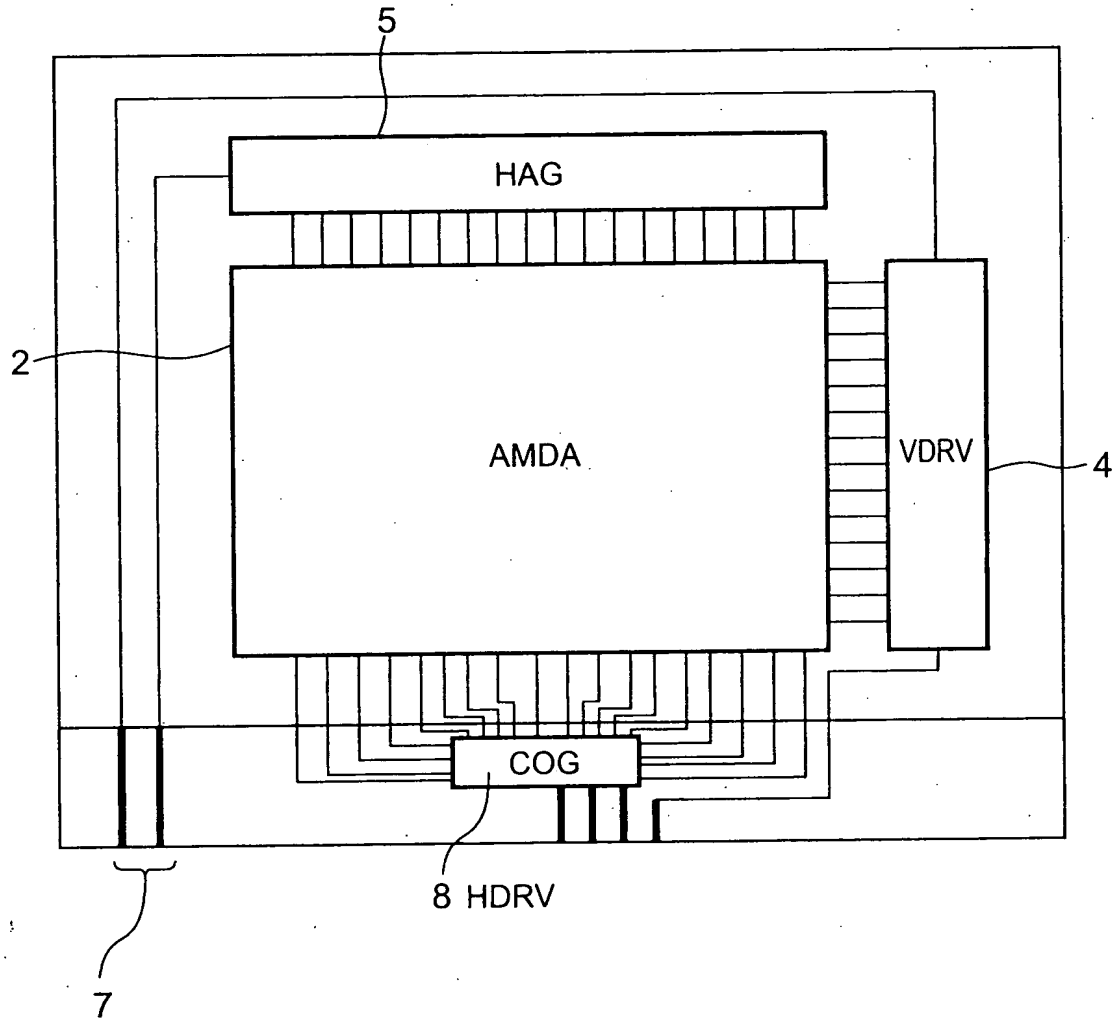


FIG.7

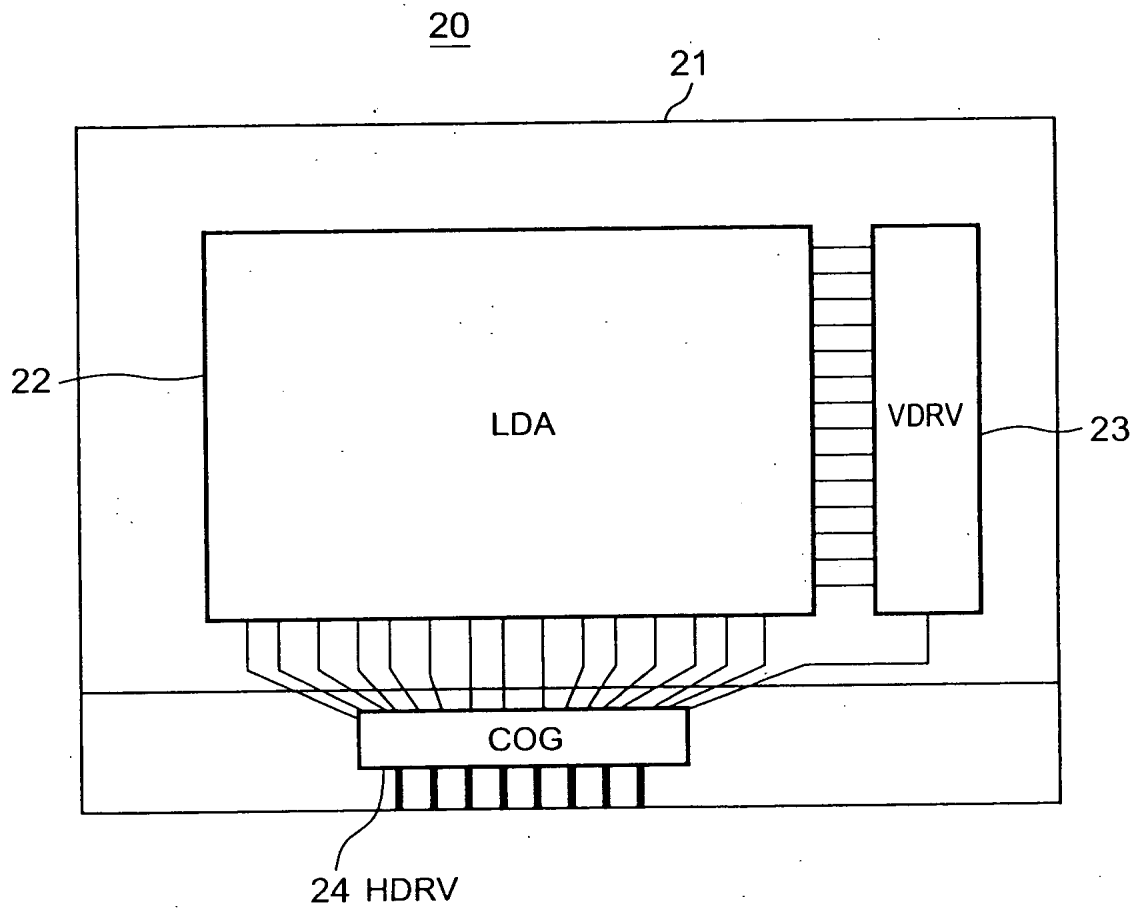
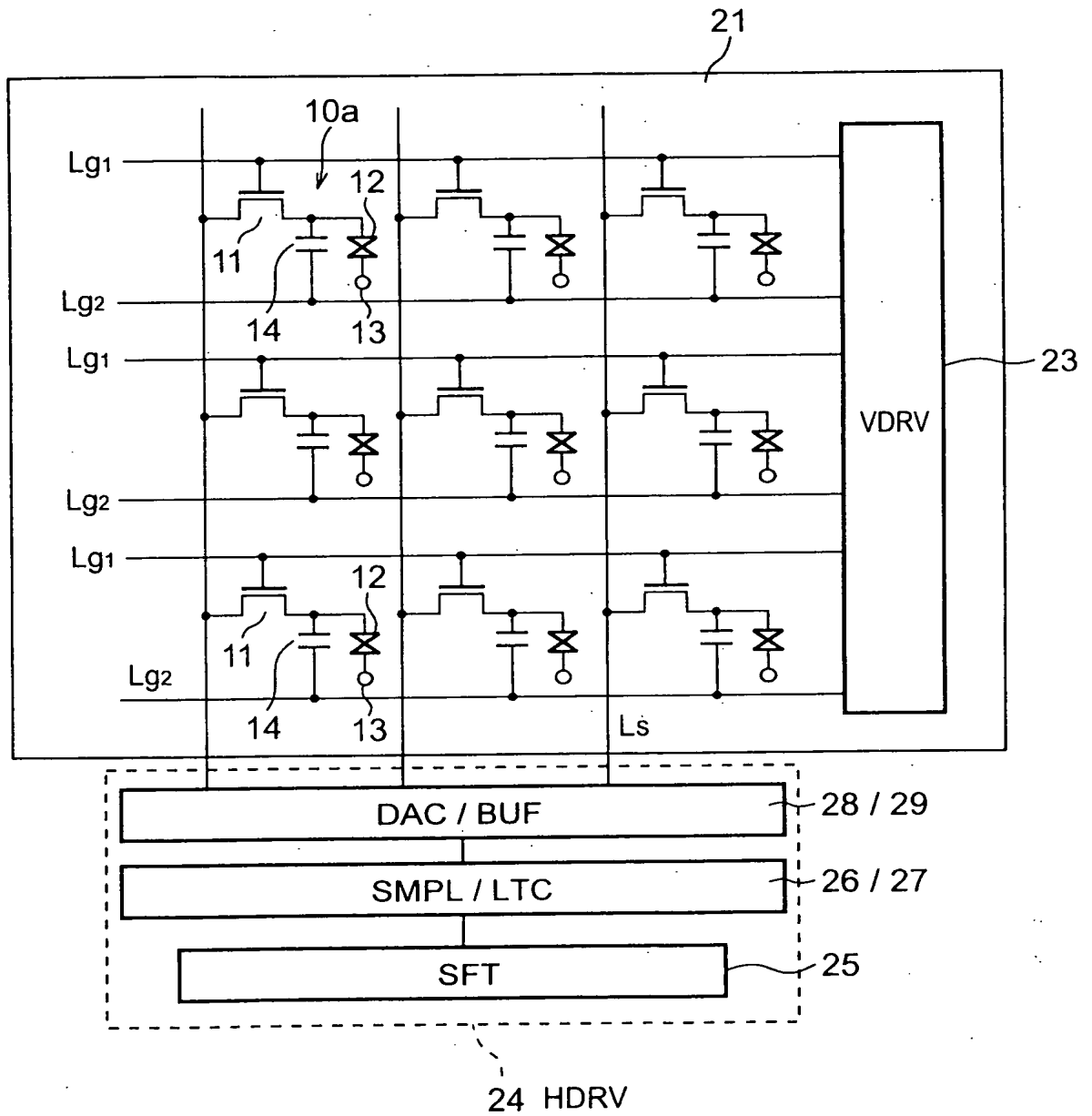


FIG.8



EXPLANATION OF REFERENCE NUMERALS

- 1... liquid crystal display panel
- 2... active matrix display area (AMDA)
- 3... glass substrate
- 4... vertical drive circuit (VDRV)
- 5, 5a... horizontal aging circuit (HAG)
- 6... first pad region
- 7... second pad region
- 8... horizontal drive circuit (HDRV)
- Lg... gate line
- Is... source line
- 10, 10a... pixel cell
- 11... TFT
- 12... liquid crystal element
- 13... counter electrode
- 14... held capacity
- 20... liquid crystal display apparatus
- 21... glass substrate
- 22... liquid crystal display area (LDA)
- 23... vertical drive circuit (VDRV)
- 24... horizontal drive circuit (HDRV)
- 25... shift register circuit (SFT)
- 26... sampling circuit (SMPL)
- 27... latch circuit (LTC)
- 28... digital/analog conversion circuit (DAC)
- 29... output buffer circuit (BUF)